

09/900,064

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FILE 'USPATFULL' ENTERED AT 11:00:32 ON 10 AUG 2003
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>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate
substance identification.

09/900,064

=> s ?cobalamin?

L1 2123 ?COBALAMIN?

=> s folic acid? or folate?

5960 FOLIC

694681 ACID?

5922 FOLIC ACID?

(FOLIC(W)ACID?)

2360 FOLATE?

L2 7394 FOLIC ACID? OR FOLATE?

=> s niacinamide?

L3 1604 NIACINAMIDE?

=> s l1 and l2

L4 1086 L1 AND L2

=> s l3 and l4

L5 368 L3 AND L4

=> s sunscreen? or uv or ultraviolet radiation?

5858 SUNSCREEN?

121414 UV

130836 ULTRAVIOLET

278606 RADIATION?

25482 ULTRAVIOLET RADIATION?

(ULTRAVIOLET(W)RADIATION?)

L6 138520 SUNSCREEN? OR UV OR ULTRAVIOLET RADIATION?

=> s l5 and l6

L7 107 L5 AND L6

=> s l7/ti

LEFT TRUNCATION IGNORED FOR '?COBALAMIN?' FOR FILE 'USPATFULL'

4 NIACINAMIDE?/TI

20 COBALAMIN?/TI

47 FOLIC/TI

41714 ACID?/TI

47 FOLIC ACID?/TI

((FOLIC(W)ACID?)/TI)

43 FOLATE?/TI

323 SUNSCREEN?/TI

1461 UV/TI

1895 ULTRAVIOLET/TI

10055 RADIATION?/TI

331 ULTRAVIOLET RADIATION?/TI

((ULTRAVIOLET(W)RADIATION?)/TI)

L8 0 (((NIACINAMIDE?/TI) AND ((?COBALAMIN?/TI) AND (FOLIC ACID?/TI OR FOLATE?/TI))) AND (SUNSCREEN?/TI OR UV/TI OR ULTRAVIOLET RADIATION?/TI))

Left truncation is not valid in the specified search field in the specified file. The term has been searched without left truncation. Examples: '?TERPEN?' would be searched as 'TERPEN?' and '?FLAVONOID' would be searched as 'FLAVONOID.'

If you are searching in a field that uses implied proximity, and you used a truncation symbol after a punctuation mark, the system may interpret the truncation symbol as being at the beginning of a term. Implied proximity is used in search fields indexed as single words, for example, the Basic Index.

=> s l6/ti

09/900,064

323 SUNSCREEN?/TI
1461 UV/TI
1895 ULTRAVIOLET/TI
10055 RADIATION?/TI
331 ULTRAVIOLET RADIATION?/TI
((ULTRAVIOLET(W)RADIATION?)/TI)
L9 2097 (SUNSCREEN?/TI OR UV/TI OR ULTRAVIOLET RADIATION?/TI)

=> d his

(FILE 'HOME' ENTERED AT 11:00:17 ON 10 AUG 2003)

FILE 'USPATFULL' ENTERED AT 11:00:32 ON 10 AUG 2003

L1 2123 S ?COBALAMIN?
L2 7394 S FOLIC ACID? OR FOLATE?
L3 1604 S NIACINAMIDE?
L4 1086 S L1 AND L2
L5 368 S L3 AND L4
L6 138520 S SUNSCREEN? OR UV OR ULTRAVIOLET RADIATION?
L7 107 S L5 AND L6
L8 0 S L7/TI
L9 2097 S L6/TI

=> s 17 and 19

L10 1 L7 AND L9

=> d ibib abs

L10 ANSWER 1 OF 1 USPATFULL on STN

ACCESSION NUMBER: 2001:97901 USPATFULL

TITLE: Inhibition of UV-induced immune suppression
and interleukin-10 production by cytoprotective
tamarind oligosaccharides

INVENTOR(S): Strickland, Faith, Galveston, TX, United States
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PATENT ASSIGNEE(S): Board of Regents, The University of Texas System,
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GA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6251878	B1	20010626
APPLICATION INFO.:	US 1999-348977		19990707 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-92444P	19980710 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Jarvis, William R. A.	
ASSISTANT EXAMINER:	Kim, Vickie	
LEGAL REPRESENTATIVE:	Fulbright & Jaworski L.L.P.	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)	
LINE COUNT:	2332	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

AB Methods and compositions are disclosed for the prevention and/or treatment of immunological damage to skin exposed to ultraviolet irradiation. The compositions described herein include biologically active tamarind seed xyloglucan oligosaccharides obtained via treatment of tamarind xyloglucan with a fungal β -glucanase. Advantageously, the cytoprotective tamarind seed xyloglucan oligosaccharides are stable at ambient conditions. In one aspect, the composition includes an aqueous solution of tamarind seed xyloglucan oligosaccharides having a concentration of at least 10×10^{-6} μg per mL of the solution. In another aspect, the method includes preventing the suppression of delayed type hypersensitivity. In yet another aspect, the invention includes reducing the amount of interleukin-10 produced by keratinocytes in the skin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s us6251878/pn

L11 1 US6251878/PN

=> d kwic

L11 ANSWER 1 OF 1 USPATFULL on STN

PI US 6251878 B1 20010626 <--

=> s l11 and l10

L12 1 L11 AND L10

=> d kwic

L12 ANSWER 1 OF 1 USPATFULL on STN

TI Inhibition of UV-induced immune suppression and interleukin-10 production by cytoprotective tamarind oligosaccharides

PI US 6251878 B1 20010626 <--

SUMM . . . the atmosphere, including the discovery of the Antarctic "hole" in the ozone layer, have focused interest in the effects of **ultraviolet radiation** on human health. Although some exposure to **ultraviolet radiation** is needed for humans to produce vitamin D, the evidence overwhelmingly shows that **ultraviolet radiation** exposure is related to a range of health problems. Specifically, it is well known that ultraviolet exposure causes sunburn and.

SUMM In addition to these established health concerns, research has provided recent evidence suggesting that exposure to **ultraviolet radiation** may have detrimental effects upon a variety of immunological reactions and may decrease the immune system's ability to respond to various infectious agents. See, e. g., Kripke (1990). In particular, it is thought that **ultraviolet radiation** -induced injury to the skin immune system supplies a second factor necessary for the development of common skin cancers. The primary factor in the induction of skin cancer is the mutational damage done by **ultraviolet radiation** to the DNA of the generative cells in the skin. However these early malignant cells are thought to be eliminated. . . normal functioning of the skin immune system. When the immune function of the cells in the skin is suppressed by **ultraviolet radiation**, the cells cannot perform their usual surveillance function and eliminate very early skin cancers.

SUMM The effect of **ultraviolet radiation** in suppressing the skin immune system is separate and dissociable from the grossly apparent inflammatory and irritant effects of **ultraviolet radiation** on the skin such as erythema (redness), edema

(swelling), and hyperkeratosis (flaking or scaling). Modalities taught in the prior art. . . . of ultraviolet-light-induced suppression of the skin immune system. For example, Reeve et al. (1991) reported that topical application of certain **ultraviolet radiation**-absorbing compounds, such as certain **sunscreens**, were effective in preventing **ultraviolet radiation**-induced erythema and edema, but that some of these **sunscreens** failed to prevent immunosuppression in a mouse model as measured either by contact hypersensitivity or by induction of susceptibility to. . . . immune system. This was confirmed by Von Praag et al. (1991) and Wolf et al. (1994), who reported that commercial **sunscreens** may not fully protect against **ultraviolet radiation**-induced immunological alterations. Indirect evidence for this idea was presented by Vermeer et al. (1991) by studying the immune reaction of. . . . either dark skinned or tanned subjects) did not appear to protect the skin immune system from the damaging effects of **ultraviolet radiation** (although it is well accepted that skin pigmentation protects the skin against the irritant and inflammatory effects of **ultraviolet radiation**).

SUMM These studies suggest that while **sunscreens** alone do prevent inflammation and irritation they do not provide complete prophylactic protection against the immunosuppressive effects of **ultraviolet radiation**. Furthermore, pharmacologic agents which are commonly and traditionally employed for the treatment of irritated and inflamed skin are without effect in treating the suppression of the skin immune system induced by exposure to **ultraviolet radiation** when they are applied after the injury is manifest. Andersen et al. (1992) examined in humans the effect of treatment with the four commonest anti-inflammatory agents of **ultraviolet radiation**-injured skin upon edema and erythema. Topically applied corticosteroids were most effective in reducing inflammation and irritation, followed respectively by indomethacin, acetylsalicylic acid (aspirin), and diphenhydramine (Benadryl.RTM.). Aspirin and Benadryl.RTM. have not been demonstrated to be capable of restoring the **ultraviolet radiation**-induced damage to the skin immune system. Local application of corticosteroids reduces the skin immune response, as taught by Bergstresser (1989). . . . cancer, academic experimental dermatologists have virtually abandoned the use of erythema and edema as endpoints for the deleterious effects of **ultraviolet radiation** in the induction of skin cancer, and have instead adopted direct measures of carcinogenesis (e. g., mutational changes in the. . . .

SUMM . . . versus restoration of the skin immune response. For example, some inventors have viewed Aloe preparations as having utility only as **sunscreens** (see Baron, U.S. Pat. No. 4,788,007) and thus having utility only for prevention and not for treatment. Those inventors which. . . . Therefore, it is not suprising that commercial Aloe products are ineffective in preventing suppression of the skin immune response by **ultraviolet radiation**.

SUMM . . . Aloe barbadensis gel extract to prevent suppression of contact hypersensitivity (CHS) and delayed-type hypersensitivity (DTH) responses in mice by ultraviolet (UV) radiation. Treatment of UV-irradiated skin with Aloe immediately after irradiation was found to prevent suppression of both CHS to fluorescein isothiocyanate and DTH to Candida albicans. Aloe treatment did not prevent the formation of cyclobutyl pyrimidine dimers in the DNA of UV-irradiated skin or accelerate repair of these lesions. Thus, these studies demonstrated that topical application of an Aloe barbadensis gel extract to the skin of UV-irradiated mice ameliorates UV-induced immune suppression by a mechanism other than DNA damage or repair. However, the precise components of Aloe gel having these. . . .

SUMM In one embodiment, the present invention includes a method of preventing

UV-induced suppression of the immune response of the skin of an animal, the method including contacting the skin with a composition including tamarind seed xyloglucan oligosaccharides prior to exposure of the skin to UV radiation. In one aspect, the composition includes an aqueous solution of tamarind seed xyloglucan oligosaccharides having a concentration of at. . . .

SUMM In another embodiment, the present invention includes a method of treating UV-induced suppression of the immune response of the skin of an animal, the method including contacting the skin with a composition. . . .

SUMM one or more suitable carriers for cutaneous application. The emollient of the present invention is further defined as suppressing a UV-induced immune response in the skin of an animal. The emollient of this invention prevents suppression of delayed type hypersensitivity and. . . .

SUMM In a final embodiment, the present invention resides in a method of treating UV-induced suppression of the immune response of the skin of an animal, said method comprising administering to said animal subsequent to UV exposure an effective dose of a composition comprising tamarind seed xyloglucan oligosaccharides. In certain aspects of the invention, the composition. . . .

DRWD activation in Pam 212 keratinocytes. As shown, the unirradiated cells exhibit a low background level of diffuse cytoplasmic staining. Following UV-irradiation, the phosphorylated (activated) JNK/SAPK proteins appear as a brown staining ring around the nucleus of the cells. Aloe barbadensis treatment partially reduced the activation (amount of staining observed.) Tamarind xyloglucan treatment of the UV-irradiated cells completely reduced the staining to background levels.

DRWD p38K Activation in Pam 212 Keratinocytes. As shown, the unirradiated cells exhibit a low background level of perinuclear staining. Following UV-irradiation, the phosphorylated (activated) p38 proteins translocate to the nucleus and appear as a deeply staining nucleus. No compound had any. . . . of the Aloe and tamarind appear to selectively affect some but not all of the signal transduction pathways activated by UV radiation.

DRWD FIG. 3 shows the effect of poly/oligosaccharides on IL-10 Protein in UV-irradiated murine skin. The groups shown are: (i) animals that were treated with methylcellulose (5 .mu.g/ml, 1 ml per mouse) following. . . .

DETD The inventors now disclose that the carbohydrates present in Aloe barbadensis gel that protect the immune response against suppression by UV radiation may belong to a family of carbohydrates with regulatory activity called "oligosaccharins." See Albersheim and Darvill (1985). Briefly, Albersheim. . . .

DETD The use of carbohydrates derived from plants other than Aloe to prevent UV-induced immune suppression is an important improvement for several reasons. First, oligosaccharins and tamarind xyloglucan represent another source of carbohydrates that. . . . in plant-based assays of biological activity have been investigated. The ability of xyloglucan oligosaccharides isolated from tamarind seeds to prevent UV radiation-induced immune suppression, as demonstrated hereinbelow, is unexpectedly very potent and can be detected using low pictogram quantities of the xyloglucan oligosaccharides applied in a saline solution to the skin of UV-irradiated mice. The fact that the tamarind xyloglucan oligosaccharides did not require a vehicle to be active has important therapeutic implications.. . .

DETD (1) Reducing the risk in humans of developing non-melanoma skin cancer by preserving the immune responses usually suppressed by UV radiation

DETD (2) Preventing the production of immunosuppressive cytokines, such as interleukin-10, following exposure of the skin to UV radiation

DETD (3) Blocking stress activated protein kinase and Janus kinase (SAPK/JNK) signal transduction pathways activated by UV radiation and, potentially, other environmental stimuli.

DETD Examples of **sunscreens** or UV absorbers useful in the present invention which protect the skin and certain sensitive ingredients from harmful sunlight include dipropyleneglycol salicylate,.

DETD . . . provitamin A (based on carrot extract, as beta-carotene), vitamin B1 (as thiamine mononitrate), vitamin B2 (as riboflavin), vitamin B3 (as **niacinamide**), vitamin B5 (as pantothenic acid), provitamin B5 (as panthenol), vitamin B6 (as pyridoxine hydrochloride, dioctenoate, dilaurate, dipalmitate or tripalmitate), vitamin B12 (as **cyanocobalamin**), vitamin B15 (as pangamic acid), vitamin C (as ascorbic acid), vitamin D2 (as ergocalciferol), vitamin D3 (as cholecalciferol), vitamin E. . . vitamin F (as glyceryl linoleate and glyceryl linolenate), vitamin K1 (as phytonadione), vitamin K3 (as menadione), paba (p-aminobenzoic acid), choline, **folic acid**, biotin, allantoin biotin, retinol, inositol, allantoin calcium pantothenate, lecithin (choline di-C16-C18 glycerophosphate), cholesterol, PEG 16 soya sterol, bisabolol, bioflavoniod and. . .

DETD Ability of Tamarind Seed Xyloglucan Oligosaccharides to Prevent Suppression of Delayed Type Sensitivity Responses in Mice by **Ultraviolet Radiation**

DETD . . . include an examination of the ability of purified plant poly- and oligosaccharides to regulate the cutaneous immune response to ultraviolet (UV) radiation and the production of immunosuppressive interleukin-10 (IL-10). C3H mice were exposed to 5 kJ/m.sup.2 UVB radiation from unfiltered FS40. . . .mu.g tamarind xyloglucan oligosaccharides saline. The mice were sensitized three days later with Candida albicans. Tamarind xyloglucan oligosaccharides completely prevented UV-induced suppression of DTM responses and was effective at low pg doses. In contrast, methylcellulose and dextran control studies showed no. . .

DETD . . . 24 h, the culture supernatants were collected and their IL-10 content was measured by ELISA. Tamarind xyloglucan oligosaccharides treatment of UV-irradiated cultures reduced (by approximately 50%) IL-10 protein compared with the cells treated with UV radiation alone. Tamarind xyloglucan oligosaccharides also blocked UV-activated phosphorylation of SAPK/JNK, which are important proteins in the cascade transducing cellular stress signals. Significantly, these results indicate that animal. . .

DETD Protocol for Testing Materials for Protection of Delayed Type Hypersensitivity Immune Response Against Suppression by **Ultraviolet Radiation**

DETD . . . shaved ventral skin was exposed to a single dose of 2 kJ UVB radiation per m.sup.2. Within 5 min of UV irradiation, the UV exposed skin was treated with Aloe extract in PBS or a control polysaccharide, methylcellulose (Sigma, St. Louis, Mo.) in PBS. Control animals were treated in an identical manner but were not exposed to UV radiation. Five days after sensitization, the mice were challenged by applying 5 .mu.l of 0.5% fluorescein isothiocyanate on both the. . .

DETD . . . animals were given a 5 kJ per m.sup.2 dose of UVB radiation in a single exposure. Within 5 min of UV irradiation, the UV exposed skin was treated with Aloe extract, oligogalacturonides, or the tamarind seed xyloglucan oligosaccharides. Three days later, the mice were. . .

DETD The percentage restoration of immunity in UV irradiated animals treated with oligosaccharides was calculated using the following formula: ##EQU1##

DETD The response of UV irradiated, untreated mice was set as 0% restoration whereas values for unirradiated, Aloe treated groups were

- considered as 100% response.
- DETD UV radiation was administered in vivo using a bank of six unfiltered FS40 sunlamps (National Biological, Twinsburg, Ohio). Approximately 65% of.
- DETD . . . done in serum-free PBS. Three groups of cells were exposed to 300 J/m.sup.2 UVB from a single FS40 sunlamp. The UV -irradiated cells and unirradiated controls were washed 2.times. and 5 ml filter-sterilized PBS, Aloe barbadensis or tamarind xyloglucan in PBS was. . . Beverly, Mass.). As shown in FIG. 1, the unirradiated cells exhibit a low background level of diffuse cytoplasmic staining. Following UV-irradiation, the phosphorylated (activated) JNK/SAPK proteins appear as a brown staining ring around the nucleus of the cells. Aloe barbadensis treatment partially reduced the activation (amount of staining observed.) Tamarind xyloglucan treatment of the UV-irradiated cells completely reduced the staining to background levels.
- DETD . . . done in serum-free PBS. Three groups of cells were exposed to 300 J/m.sup.2 UVB from a single FS40 sunlamp. The UV -irradiated cells and unirradiated controls were washed 2.times. and 5 ml filter-sterilized PBS, Aloe barbadensis or tamarind xyloglucan in PBS was. . . Biolabs, Beverly Mass.). As shown in FIG. 2, the unirradiated cells exhibit a low background level of perinuclear staining. Following UV-irradiation, the phosphorylated (activated) p38 proteins translocate to the nucleus and appear as a deeply staining nucleus. No compound had any. . . of the Aloe and tamarind appear to selectively affect some but not all of the signal transduction pathways activated by UV radiation.
- DETD Effect of Poly/Oligosaccharides on IL-10 Protein in UV -irradiated Murine Skin
- DETD Kripke. "Effects of UV Irradiation on Tumor Immunity", J. Natl. Canc. Inst. U.S. pp 1392-1396 (1990)
- DETD Reeve et al., Differential Protection by Two **Sunscreens** from UV Irradiation-Induced Immunosuppression, J. Invest. Dermatol. 97:624-628 (1991)
- DETD Strickland, Pelley, Kripke, "Prevention of **ultraviolet radiation**-induced suppression of contact and delayed hypersensitivity by Aloe barbadensis gel extract," J. Invest. Dermatol., 102:197, 1994.
- DETD Von Praag et al., "Effect of Topical **Sunscreens** of the UV-Irradiation-Induced Suppression of the Alloactivating Capacity in Human Skin In Vivo", J. Invest. Dermatol., 97:629-633 (1991).
- DETD Wolf et al., "Analysis of the Protective Effects of Different **Sunscreens** on Ultraviolet Irradiation-Induced Local and Systemic Suppression of Contact Hypersensitivity and Inflammatory Responses in Mice", J. Invest. Dermatol. 100:254-259.
- CLM What is claimed is:
1. A method of treating UV-induced suppression of the immune response of the skin of an animal, said method comprising contacting said skin with a composition.
 7. A method of treating UV-induced suppression of the immune response of the skin of an animal, said method comprising administering to said animal an effective.

=> d his

(FILE 'HOME' ENTERED AT 11:00:17 ON 10 AUG 2003)

FILE 'USPATFULL' ENTERED AT 11:00:32 ON 10 AUG 2003

L1 2123 S ?COBALAMIN?
L2 7394 S FOLIC ACID? OR FOLATE?

09/900,064

L3 1604 S NIACINAMIDE?
L4 1086 S L1 AND L2
L5 368 S L3 AND L4
L6 138520 S SUNSCREEN? OR UV OR ULTRAVIOLET RADIATION?
L7 107 S L5 AND L6
L8 0 S L7/TI
L9 2097 S L6/TI
L10 1 S L7 AND L9
L11 1 S US6251878/PN
L12 1 S L11 AND L10

=> s benzoic acid or titanium dioxide or cinnamate or salicylate or benzophenone

59972 BENZOIC
666888 ACID
47737 BENZOIC ACID
(BENZOIC(W)ACID)
210514 TITANIUM
249520 DIOXIDE
52781 TITANIUM DIOXIDE
(TITANIUM(W)DIOXIDE)
5874 CINNAMATE
20877 SALICYLATE
26292 BENZOPHENONE
L13 129001 BENZOIC ACID OR TITANIUM DIOXIDE OR CINNAMATE OR SALICYLATE OR
BENZOPHENONE

=> s l13 and l11

L14 1 L13 AND L11

=> d kwic

L14 ANSWER 1 OF 1 USPATFULL on STN

PI US 6251878 B1 20010626 <--

DETD . . . UV absorbers useful in the present invention which protect the skin and certain sensitive ingredients from harmful sunlight include dipropyleneglycol **salicylate**, octyl **salicylate**, 2-ethylhexyl p-dimethylaminobenzoate (octyldimethyl-PABA), polyoxyethylene p-dimethylaminobenzoate (PEG-25 PABA), Tri-PABA-panthenol, drometrizole, 2-ethylhexyl p-methoxycinnamate, DEA p-methoxycinnamate, butyl methoxybenzoylmethane, benzophenones 1 through 12 particularly, 2,4-dihydroxybenophenone (**benzophenone 1**), 2,2',4,4'-tetrahydroxybenzophenone (**benzophenone 2**), 2-hydroxy-4-methoxybenzophenone (**benzophenone 3**), 2-hydroxy-4-methoxybenzophenone-5-sulfonic acid (**benzophenone 4**), 2,2'-dihydroxy-4,4'-dimethoxybenzophenone (**benzophenone 6**), 2,2'-dihydroxy-4-methoxybenzophenone (**benzophenone 8**), disodium 2,2'-dihydroxy-4,4'-dimethoxy-5,5'-disulfobenzophenone (**benzophenone 9**), 2-hydroxy-4-n-octoxybenzophenone, methyl anthranilate, 2-(2-hydroxy-5'-methylphenyl)benzotriazole, 2-phenylbenzimidazole-5-sulfonic acid, 2-hexanolethyl **salicylate**, octyl methoxycinnamate, butyl methoxydibenzoylmethane, ethyl p-amino benzoate and mixtures thereof.

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surface, a stable emulsion from which the film can be made and a special **process** for the manufacture of the stable emulsion. The topical application of stable emulsions from which a water resistant, non-gummy, hygroscopic, flexible and pliable thin film of 2-hydroxyethyl methacrylate homopolymer in combination with a sunscreensing agent is deposited on an epidermal surface. Special solvent combinations and emulsification techniques are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 25 OF 25 USPATFULL on STN

ACCESSION NUMBER: 78:4949 USPATFULL

TITLE: **Sunscreensing compound and method**

INVENTOR(S): Barner, Richard, Witterswil, Switzerland

Boguth, Walter, Riehen, Switzerland

PATENT ASSIGNEE(S): Hoffmann-La Roche, Inc., Nutley, NJ, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4070450		19780124
APPLICATION INFO.:	US 1975-643427		19751222 (5)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1975-608957, filed on 29 Aug 1975, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Ore, Dale R.		
LEGAL REPRESENTATIVE:	Welt, Samuel L., Leon, Bernard S., Swope, R. Hain		
NUMBER OF CLAIMS:	16		
EXEMPLARY CLAIM:	1		
LINE COUNT:	502		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Radiation screening preparations comprising a cosmetically acceptable carrier and, as the active ingredient, one or more compounds represented by the formula ##STR1## WHEREIN N IS 1, R.sub.1 is hydrogen, alkyl, alkali metal, ammonium or ammonium substituted with one or more alkyl or hydroxyalkyl residues, R.sub.2 is hydroxymethyl or alkoxyethyl and R.sub.3 is hydrogen; or R.sub.1 and R.sub.2 together constitute a methylene group and R.sub.3 is hydrogen, methyl or ethyl; and wherein n is 2, R.sub.1 is an alkaline earth metal, R.sub.2 is hydroxymethyl or alkoxyethyl and R.sub.3 is hydrogen

And pharmaceutically acceptable acid addition salts thereof. The preparations may additionally contain other agents which are characterized by a maximum light absorption in the erythema range. Certain novel compounds are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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09/900,064

FILE 'USPATFULL' ENTERED AT 10:16:24 ON 10 AUG 2003

L1 124669 S UV OR SUNSCREEN?
L2 2535416 S METHOD? OR PROCESS?
L3 121722 S L1 AND L2
L4 1745 S VITAMIN? B12
L5 487 S L3 AND L4
L6 103954 S MAMMAL?
L7 344 S L5 AND L6
L8 58741 S LIPID?
L9 248 S L7 AND L8
L10 343247 S ESTER?
L11 213 S L9 AND L10
L12 33606 S B3 OR NIACINAMIDE?
L13 102 S L11 AND L12
L14 5925 S VITAMIN? B9 OR FOLIC ACID?
L15 11544 S B9 OR FOLIC ACID?
L16 102 S L15 AND L13
L17 18612 S ENDONUCLEASE OR PHOTOLYASE
L18 98 S L16 AND L17
L19 87231 S DNA
L20 98 S L18 AND L19
L21 1078817 S ORAL? OR TOPICAL? OR PARENT? OR ENTER? OR ENTRAN? OR RECTAL?
L22 98 S L20 AND L21
L23 353331 S DERIVATIVE?
L24 98 S L22 AND L23
L25 100661 S SALICYLATE? OR BENZOPHENONE? OR ANTHRANILATE? OR TITANIUM DIO
L26 1 S L24 AND L25
L27 48602 S COSMETIC?
L28 95 S L27 AND L24
L29 3589 S BETA-CAROTENE
L30 1 S L29 AND L28
L31 49843 S BENZOIC ACID?
L32 94 S L31 AND L28
L33 8089 S AMINOBENZOIC ACID?
L34 1 S L33 AND L28
L35 178107 S DISEASE?
L36 95 S L35 AND L28
L37 37 S SUNCREEN? (P) COMPOSITION?
L38 0 S L37 AND L36
L39 730070 S COMPOSITION?
L40 1772 S L1/TI
L41 0 S L40 AND L36
L42 325 S ULTRAVIOLET RADIATION/TI
L43 0 S L42 AND L28
L44 3 S ULTRAVIOLET RADIATION AND L28
L45 95 S L39 AND L36
L46 1009 S VITAMIN?/TI
L47 1 S L45 AND L46
L48 887260 S L2/TI
L49 50405 S L48 AND L35
L50 1 S L36 AND L48
L51 1650 S L40 AND L2
L52 1 S L51 AND L4
L53 25 S VITAMIN B AND L51
L54 25 S L53 NOT L45
L55 0 S L54 AND L28
L56 0 S L28 NOT PEPTIDE?

=> d 154 ibib abs 1-25

L54 ANSWER 1 OF 25 USPATFULL on STN

09/900,064

ACCESSION NUMBER: 2003:198969 USPATFULL
TITLE: Low-color ultraviolet absorbers for high UV
wavelength protection applications
INVENTOR(S): Danielson, Todd D., Moore, SC, UNITED STATES
Zhao, Xiaodong E., Moore, SC, UNITED STATES
Mason, Mary E., Spartanburg, SC, UNITED STATES
Connor, Daniel M., Inman, SC, UNITED STATES
Stephens, Eric B., Roebuck, SC, UNITED STATES
Sprinkle, Jason D., Woodruff, SC, UNITED STATES
Xia, Jusong, Moore, SC, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003136949	A1	20030724
APPLICATION INFO.:	US 2002-334857	A1	20021231 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2001-934377, filed on 21 Aug 2001, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Milliken & Company, P. O. Box 1927, Spartanburg, SC, 29304		
NUMBER OF CLAIMS:	14		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1359		

AB Novel ultraviolet absorbing compounds that are liquid in nature, are extremely low in color (and thus permit use without the concomitant necessity of adding large amounts of other coloring agents to combat such discoloring), and are highly effective in providing protection in wavelength ranges for which previous attempts at low-color ultraviolet absorbers have failed are provided herein. Such compounds provide such excellent, inexpensive, and beneficial protection from ultraviolet exposure within various media, including, but not limited to, clear thermoplastics. The particular compounds are generally polymeric in nature including various chain lengths of polyoxyalkylenes thereon and are liquid in nature to facilitate handling and introduction within the target media. In addition, such ultraviolet absorbers also exhibit extremely low migratory properties thereby providing long-term protective benefits to the target media as well. This invention also concerns the end products, specific broadly defined types of compounds providing such beneficial characteristics, **methods** of making such low-color compounds, and **methods** of producing such clear, UV protected end products.

L54 ANSWER 2 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2003:110991 USPATFULL
TITLE: Low-color ultraviolet absorbers for high UV
wavelength protection applications
INVENTOR(S): Danielson, Todd D., Moore, SC, UNITED STATES
Zhao, Xiaodong E., Moore, SC, UNITED STATES
Mason, Mary E., Spartanburg, SC, UNITED STATES
Connor, Daniel M., Inman, SC, UNITED STATES
Stephen, Eric B., Roebuck, SC, UNITED STATES
Sprinkle, Jason D., Roebuck, SC, UNITED STATES
Xia, Jusong, Moore, SC, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003075709	A1	20030424
	US 6602447	B2	20030805
APPLICATION INFO.:	US 2001-934377	A1	20010821 (9)
DOCUMENT TYPE:	Utility		

09/900,064

FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: William S. Parks, P.O. Box 1927, Spartanburg, SC, 29304
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
LINE COUNT: 1382

AB Novel ultraviolet absorbing compounds that are liquid in nature, are extremely low in color (and thus permit use without the concomitant necessity of adding large amounts of other coloring agents to combat such discoloring), and are highly effective in providing protection in wavelength ranges for which previous attempts at low-color ultraviolet absorbers have failed are provided herein. Such compounds provide such excellent, inexpensive, and beneficial protection from ultraviolet exposure within various media; including, but not limited to, clear thermoplastics. The particular compounds are generally polymeric in nature including various chain lengths of polyoxyalkylenes thereon and are liquid in nature to facilitate handling and introduction within the target media. In addition, such ultraviolet absorbers also exhibit extremely low migratory properties thereby providing long-term protective benefits to the target media as well. This invention also concerns the end products, specific broadly defined types of compounds providing such beneficial characteristics, **methods** of making such low-color compounds, and **methods** of producing such clear, UV protected end products.

L54 ANSWER 3 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2003:17060 USPATFULL
TITLE: Towelette product with **sunscreen** agent
INVENTOR(S): Gott, Robert Edward, Norwalk, CT, UNITED STATES
Slavtcheff, Craig Stephen, Guilford, CT, UNITED STATES
PATENT ASSIGNEE(S): Unilever Home & Personal Care USA, Division of Conopco, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003012809	A1	20030116
APPLICATION INFO.:	US 2002-127776	A1	20020422 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-841208, filed on 24 Apr 2001, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-242648P	20001023 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
LINE COUNT:	707	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cosmetic towelette is provided which includes a water-insoluble substrate and a fluid cosmetic composition impregnated into the substrate. The composition has a viscosity ranging from 0 cps to about 100 cps. The composition includes a water phase, a sunscreen phase and a surfactant system. The sunscreen phase is immiscible with the water phase and contains at least 25% organic sunscreen agent. Towelettes impregnated with the composition impart an effective SPF to the skin when applied thereto.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

09/900,064

L54 ANSWER 4 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2002:160247 USPATFULL

TITLE: Sensor including **UV**-absorbing polymer and **method** of manufacture

INVENTOR(S): Van Antwerp, William P., Valencia, CA, United States
Mastrototaro, John J., Los Angeles, CA, United States

PATENT ASSIGNEE(S): MiniMed, Inc., Sylmar, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6413393	B1	20020702
APPLICATION INFO.:	US 1999-348771		19990707 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Tung, T.		
ASSISTANT EXAMINER:	Noguerola, Alex		
LEGAL REPRESENTATIVE:	Gates & Cooper LLP		
NUMBER OF CLAIMS:	51		
EXEMPLARY CLAIM:	8		
NUMBER OF DRAWINGS:	14 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	954		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A sensor is provided that includes at least one functional coating layer that includes a UV-absorbing polymer. **Methods** for making the inventive sensors are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 5 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2002:140878 USPATFULL

TITLE: Towelette product with **sunscreen** agent

INVENTOR(S): Gott, Robert Edward, Norwalk, CT, UNITED STATES
Slavtcheff, Craig Stephen, Guilford, CT, UNITED STATES

PATENT ASSIGNEE(S): Unilever Home & Personal Care USA, Division of Conopco, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002071859	A1	20020613
APPLICATION INFO.:	US 2001-841208	A1	20010424 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-242648P	20001023 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
LINE COUNT:	650	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cosmetic towelette is provided which includes a water-insoluble substrate and a fluid cosmetic composition impregnated into the substrate. The composition has a viscosity ranging from about 1 cps to 10,000 cps. The composition includes a water phase, a sunscreen phase and a surfactant system. The sunscreen phase is immiscible with the water phase and contains at least 25% organic sunscreen agent. Towelettes impregnated with the composition impart an effective SPF to the skin when applied thereto.

09/900,064

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 6 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2002:106323 USPATFULL

TITLE: UV-B filter

INVENTOR(S): Heywang, Ulrich, Darmstadt, DE, UNITED STATES
Schwarz, Michael, Weiterstadt, GERMANY, FEDERAL
REPUBLIC OF
Pflucker, Frank, Darmstadt, GERMANY, FEDERAL REPUBLIC
OF

PATENT ASSIGNEE(S): MERCK PATENT GESELLSCHAFT, Darmstadt, GERMANY, FEDERAL
REPUBLIC OF, D-64293 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002055532	A1	20020509
	US 6440401	B2	20020827
APPLICATION INFO.:	US 2001-989172	A1	20011121 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2001-885967, filed on 22 Jun 2001, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2000-DE10030663	20000623
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	25	
EXEMPLARY CLAIM:	1	
LINE COUNT:	910	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a 2-phenyl-benzimidazolesulfonic acid according to the
formula ##STR1##

in which

n is 0, 1 or 2 and

m is 2 or 3,

R1, R2, R3, R4 and R5, are each a radical such as H, C.sub.1-8-alkyl,
C.sub.1-8-alkoxy, hydroxyl, sulfate, nitro, F, Cl, Br or I radicals, and

R6 is a C.sub.1-8-alkyl or C.sub.1-8-alkoxy radical.

This compound can be effectively used as a UV filter, and as part of a
cosmetic formulation which comprise these compounds. A **process**
for preparation of the compound is disclosed as well.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 7 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2002:27501 USPATFULL

TITLE: UV-B filters

INVENTOR(S): Heywang, Ulrich, Darmstadt, GERMANY, FEDERAL REPUBLIC
OF
Schwarz, Michael, Weiterstadt, GERMANY, FEDERAL
REPUBLIC OF
Pflucker, Frank, Darmstadt, GERMANY, FEDERAL REPUBLIC
OF

PATENT ASSIGNEE(S): Merck Patent Gesellschaft, Darmstadt, GERMANY, FEDERAL

REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002016349	A1	20020207
APPLICATION INFO.:	US 2001-885967	A1	20010622 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2000-DE10030663	20000623
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	25	
EXEMPLARY CLAIM:	1	
LINE COUNT:	903	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a 2-phenyl-benzimidazolesulfonic acid according to the formula ##STR1##

in which

n is 0, 1 or 2 and

m is 2 or 3,

R1, R2, R3, R4 and R5, are each a radical such as H, C.sub.1-8-alkyl, C.sub.1-8-alkoxy, hydroxyl, sulfate, nitro, F, Cl, Br or I radicals, and

R6 is a C.sub.1-8-alkyl or C.sub.1-8-alkoxy radical.

This compound can be effectively used as a UV filter, and as part of a cosmetic formulation which comprise these compounds. A **process** for preparation of the compound is disclosed as well.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 8 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2002:22638 USPATFULL

TITLE: **Process** for the preparation of **UV** filter substances

INVENTOR(S): Heywang, Ulrich, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Schwarz, Michael, Weiterstadt, GERMANY, FEDERAL REPUBLIC OF
Pflucker, Frank, Darmstadt, GERMANY, FEDERAL REPUBLIC OF

PATENT ASSIGNEE(S): Merck Patent Gesellschaft (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002013474	A1	20020131
	US 6593476	B2	20030715
APPLICATION INFO.:	US 2001-887265	A1	20010625 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2000-DE10030664	20000623
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON	

09/900,064

BLVD., SUITE 1400, ARLINGTON, VA, 22201
NUMBER OF CLAIMS: 27
EXEMPLARY CLAIM: 1
LINE COUNT: 1016
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a preparation process for
2-arylbenzimidazolesulfonic acids of the formula I: ##STR1##

Ar is a substituted or unsubstituted phenyl or naphthyl radical and R is
a C.sub.1-8-alkyl or C.sub.1-8-alkoxy radical. n is 1-4, m is 1-3 and o
is 0-2. o-phenylenediamine is reacted in the presence of oleum with an
arylcarboxylic acid or an arylcarboxylic acid derivative. Compounds
prepared in this way can be used as UV filters, and as components in
cosmetic compositions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 9 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2001:233121 USPATFULL
TITLE: Method for testing sunscreens
INVENTOR(S): Stewart, Ernest Glading, Thomasville, GA, United States
Klein, Kenneth, Fair Lawn, NJ, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001053348	A1	20011220
APPLICATION INFO.:	US 2001-800088	A1	20010306 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-868766, filed on 4 Jun 1997, GRANTED, Pat. No. US 6197281		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Sanford J. Asman, Esq., 570 Vinington Court, Dunwoody, GA, 30350		
NUMBER OF CLAIMS:	47		
EXEMPLARY CLAIM:	1		
LINE COUNT:	877		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The sunscreen or makeup may be applied to a person who is wet, or even
underwater, yet it will provide the full efficacy which it would have
had had it been applied to the person when their skin was dry. In
addition, it will be effective from the time that it is first applied,
so no waiting period is required, as was the case for the so-called
"water resistant" and "waterproof" sunscreens of the prior art.

A series of test procedures which illustrate the efficacy of the
"wet-appliable" sunscreens of the present invention are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 10 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2001:126157 USPATFULL
TITLE: Use of organosulfur compounds for effecting a
bathochromic shift in the UV/vis absorption
bands of carotenoids
INVENTOR(S): Auweter, Helmut, Limburgerhof, Germany, Federal
Republic of
Bohn, Heribert, Wattenheim, Germany, Federal Republic
of
Horn, Dieter, Heidelberg, Germany, Federal Republic of
Kramer, Klaus, Landau, Germany, Federal Republic of
Paust, Joachim, Neuhausen, Germany, Federal Republic of
Weiss, Horst, Neuhausen, Germany, Federal Republic of

09/900,064

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Ludwigshafen, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6271396	B1	20010807
APPLICATION INFO.:	US 1999-352140		19990713 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1998-19831865	19980716
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Solola, Taofiq A.	
LEGAL REPRESENTATIVE:	Keil & Weinkauff	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
LINE COUNT:	357	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Organosulfur compounds can be used in complexes with carotenoids for effecting a bathochromic shift in the absorption bands of carotenoids in the UV/vis spectrum. Carotenoid formulations comprising these complexes, a **process** for preparing these formulations and their use in the food, cosmetics and pharmaceutical sectors are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 11 OF 25 USPATFULL on STN
ACCESSION NUMBER: 2001:98052 USPATFULL
TITLE: UV absorbing polymer
INVENTOR(S): Van Antwerp, William P., Valencia, CA, United States
Yao, Li, Fairburn, GA, United States
PATENT ASSIGNEE(S): MiniMed Inc., Sylmar, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6252032	B1	20010626
APPLICATION INFO.:	US 1999-349270		19990707 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Gorr, Rachel		
LEGAL REPRESENTATIVE:	Gates & Cooper LLP		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)		
LINE COUNT:	598		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An ultraviolet-absorbing polymer is formed from a reaction mixture including a diisocyanate, at least one selected from the group consisting of a diol, a diamine and mixtures thereof, and a polyfunctional UV-absorbing monomer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 12 OF 25 USPATFULL on STN
ACCESSION NUMBER: 2001:63232 USPATFULL
TITLE: UV protection compositions
INVENTOR(S): Robinson, Larry Richard, Loveland, OH, United States
PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6224854	B1	20010501
APPLICATION INFO.:	US 2000-510831		20000223 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-263013, filed on 5 Mar 1999, now abandoned Continuation-in-part of Ser. No. US 1998-174177, filed on 16 Oct 1998, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Kendall, Dara M., Tsuenki, Fumiko, Hilton, Michael E.		
NUMBER OF CLAIMS:	22		
EXEMPLARY CLAIM:	1		
LINE COUNT:	949		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compositions suitable for providing protection against the harmful effects of ultraviolet radiation. The composing provide excellent efficiency, broad spectrum UV efficacy, and photostability. **Methods** of use for these compositions are also disclosed. The present compositions comprise:

a) an effective amount of a UVA-absorbing dibenzoylmethane sunscreen active;

b) an effective amount of a styrene derivative, having the formula
##STR1##

wherein at least one of R.sub.1, R.sub.2, and R.sub.3 is an electron-withdrawing substituent, provided that R.sub.1 is other than an aryl or a methyl, that R.sub.2 and R.sub.3 are each other than a ketone, and that R.sub.2 and R.sub.3 together do not form a camphor group; wherein the remaining substituents of R.sub.1, R.sub.2, and R.sub.3 that are not electron-withdrawing substituents are selected from the group consisting of H and electron-donating substituents; and wherein R.sub.4 is selected from the group consisting of H, electron-donating substituents other than ethers, and electron-withdrawing substituents other than cyanos; and

c) a suitable carrier.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 13 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2000:153254 USPATFULL
 TITLE: Disappearing color **sunscreen** compositions
 INVENTOR(S): Bell, Robert, Miami, FL, United States
 Gray, Denman, Coral Springs, FL, United States
 PATENT ASSIGNEE(S): IPA, LLC, Ft. Worth, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6146618		20001114
APPLICATION INFO.:	US 1999-472390		19991223 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-129938, filed on 6 Aug 1998, now patented, Pat. No. US 6007797		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Duft, Graziano & Forest. PC		
NUMBER OF CLAIMS:	25		

09/900,064

EXEMPLARY CLAIM: 1

LINE COUNT: 757

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Sunscreens are colored with oil-soluble dyes approved for use in skin care products (such as sunscreens, lotions, etc.). The color imparted by the dyes substantially disappears shortly after the sunscreen emulsion is applied to skin. This colored sunscreen emulsion includes a oil-soluble phase, at least one sunscreen active agent, water, and an emulsifier. The oil-soluble phase comprises from about 0.0005 to about 0.5 percent by weight of the complete emulsion of at least one oil-soluble dye. The dye imparts a color other than white to the sunscreen emulsion.

The sunscreen active ingredient is provided in an amount effective to protect against the actinic radiation of the sun. Sufficient water is provided to form the colored emulsion. The emulsion additionally contains at least one emulsifier in an amount effective to provide an at least substantially stable emulsion. Other optional ingredients may also be compounded into the sunscreen formulations.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 14 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2000:70432 USPATFULL

TITLE: Photostable UV protection compositions

INVENTOR(S): Robinson, Larry Richard, Loveland, OH, United States

PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6071501		20000606
APPLICATION INFO.:	US 1999-244727		19990205 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Kendall, Dara M., Henderson, Loretta J., Hilton, Michael E.		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
LINE COUNT:	883		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to photostable compositions suitable for providing protection against the harmful effects of ultraviolet radiation. The compositions provide excellent efficiency and broad spectrum UV efficacy while exhibiting improved photostability. **Methods** of use for these compositions are also disclosed. The present compositions comprise:

- a) an effective amount of a UVA-absorbing dibenzoylmethane sunscreen active;
- b) a photostabilizing system consisting essentially of an effective amount of 2-ethylhexyl-p-methoxycinnamate; and
- c) a suitable carrier;

wherein the mole ratio of 2-ethylhexyl-p-methoxycinnamate to the dibenzoylmethane sunscreen active is from about 0.15:1 to about 1:1.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

09/900,064

L54. ANSWER 15 OF 25 USPATFULL on STN

ACCESSION NUMBER: 1999:170191 USPATFULL
TITLE: Disappearing color **sunscreen** compositions
INVENTOR(S): Bell, Robert, Miami, FL, United States
Gray, Denman, Coral Springs, FL, United States
PATENT ASSIGNEE(S): IPA, LLC, Ft. Worth, TX, United States (U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6007797		19991228
APPLICATION INFO.:	US 1998-129938		19980806 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Duft, Graziano & Forest, PC		
NUMBER OF CLAIMS:	8		
EXEMPLARY CLAIM:	1		
LINE COUNT:	690		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Sunscreens are colored with oil-soluble dyes approved for use in skin care products (such as sunscreens, lotions, etc.). The color imparted by the dyes substantially disappears shortly after the sunscreen emulsion is applied to skin. This colored sunscreen emulsion includes a oil-soluble phase, at least one sunscreen active agent, water, and an emulsifier. The oil-soluble phase comprises from about 0.0005 to about 0.5 percent by weight of the complete emulsion of at least one oil-soluble dye. The dye imparts a color other than white to the sunscreen emulsion.

The sunscreen active ingredient is provided in an amount effective to protect against the actinic radiation of the sun. Sufficient water is provided to form the colored emulsion. The emulsion additionally contains at least one emulsifier in an amount effective to provide an at least substantially stable emulsion. Other optional ingredients may also be compounded into the sunscreen formulations.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54. ANSWER 16 OF 25 USPATFULL on STN

ACCESSION NUMBER: 1999:136663 USPATFULL
TITLE: UV protection compositions
INVENTOR(S): Robinson, Larry Richard, Loveland, OH, United States
PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5976513		19991102
APPLICATION INFO.:	US 1999-264139		19990305, (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-174225, filed on 16 Oct 1998, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Kendall, Dara M., Henderson, Loretta J., Hilton, Michael E.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
LINE COUNT:	906		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compositions suitable for providing

protection against the harmful effects of ultraviolet radiation. The compositions provide excellent efficiency, broad spectrum UV efficacy, and photostability. **Methods** of use for these compositions are also disclosed. The present compositions comprise: a) an effective amount of a UVA-absorbing dibenzoylmethane sunscreen active;

b) an and effective amount of a naphthalene derivative having the formula ##STR1## wherein R is in the 1 or 2 position and is independently selected from the group consisting of CHO, COOH, COR' wherein R' is a C.sub.1 -C.sub.30 straight or branched alkyl or an aryl, and wherein said naphthalene derivative has a triplet energy state of from about 56 kcal/mol to about 59.5 kcal/mol; and

c) a suitable carrier.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 17 OF 25 USPATFULL on STN

ACCESSION NUMBER: 1999:136660 USPATFULL
 TITLE: Cosmetic tanning and **sunscreen** agent
 INVENTOR(S): Cernasov, Domnica, Ringwood, NJ, United States
 Maccio, Ralph, Flanders, NJ, United States
 Stanzl, Klaus, White Plains, NY, United States
 Zastrow, Leonhard, Monaco, Monaco
 Kulkarni, Rupali, Bridgewater, NJ, United States
 PATENT ASSIGNEE(S): Lancaster Group GmbH, Ludwigshafen, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5976510		19991102
APPLICATION INFO.:	US 1997-951703		19971016 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19644637	19961017
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Dodson, Shelley A.	
LEGAL REPRESENTATIVE:	Collard & Roe, P.C.	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
LINE COUNT:	268	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A new cosmetic product combines tanning, sunscreen, moisturizing and water-repellant properties in a stable formulation. The product is an O/W emulsion which includes from 5% to 14% by weight of inorganic pigments treated with perfluoroalkyl phosphates, in which the pigments are selected from the group consisting of colored iron oxides, titanium dioxide and mixtures thereof. There are dispersants selected from the group consisting of at least (b1) cetyl dimethicone copolyol and (b2) cetyl dimethicone which are present in the range of 2% to 10% by weight, with the ratio of (b1) to (b2) in the range from 15-3 to 40-8, and further known carrier and auxiliary agents as well as further dispersants if required, in which the share of moisturizing additives is less than 4% by weight.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 18 OF 25 USPATFULL on STN

ACCESSION NUMBER: 1999:132208 USPATFULL
 TITLE: UV protection compositions

09/900,064

INVENTOR(S): Robinson, Larry Richard, Loveland, OH, United States
PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5972316		19991026
APPLICATION INFO.:	US 1999-263017		19990305 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-174307, filed on 16 Oct 1998, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Kendall, Dara M., Henderson, Loretta J., Hilton, Michael E.		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
LINE COUNT:	893		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compositions suitable for providing protection against the harmful effects of ultraviolet radiation. The compositions provide excellent efficiency, broad spectrum UV efficacy, and photostability. **Methods** of use for these compositions are also disclosed. The present compositions comprise:

a) an effective amount of a UVA-absorbing dibenzoylmethane sunscreen active;

b) an effective amount of an aniline derivative, having the formula ##STR1## wherein R.sub.1, R.sub.2, R.sub.3, R.sub.4, and R.sub.5 are independently selected from the group consisting of H, R', OR', COOH, CHO, COOR', CN, SO.sub.2 R', SO.sub.2 OR', NO, aryls, OH,SH, NHR', NR'.sub.2, SR', I, Cl, F, Br, and combinations thereof; wherein R' is a C.sub.1 -C.sub.30 straight or branched alkyl or an aryl; wherein R.sub.1, R.sub.2, R.sub.3, R.sub.4, and R.sub.5 can together form with each other bridged cyclic structures; and

c) a suitable carrier.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 19 OF 25 USPATFULL on STN

ACCESSION NUMBER: 1999:128104 USPATFULL
TITLE: UV protection compositions
INVENTOR(S): Robinson, Larry Richard, Loveland, OH, United States
PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5968485		19991019
APPLICATION INFO.:	US 1999-263673		19990305 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-174274, filed on 16 Oct 1998, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Kendall, Dara M., Henderson, Loretta J., Hilton, Michael E.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
LINE COUNT:	903		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compositions suitable for providing protection against the harmful effects of ultraviolet radiation. The compositions provide excellent efficiency, broad spectrum UV efficacy, and photostability. **Methods** of use for these compositions are also disclosed. The compositions comprise:

a) an effective amount of a UVA-absorbing dibenzoylmethane sunscreen active;

b) an effective amount of a tertiary amine containing 2 or less nitrogen atoms having the formula ##STR1## wherein R.sub.1, R.sub.2, and R.sub.3 are independently selected from the group consisting of straight, branched or cyclic C.sub.1 -C.sub.30 alkyls and aryls other than those aryls substituted in the para position with a benzofuran, carboxylic acid, or ester group; wherein R.sub.1, R.sub.2, and R.sub.3, can together form with each other a ring having at least 2 carbon atoms; and wherein when either R.sub.1, R.sub.2, or R.sub.3 contains a hydrogen alpha to the nitrogen atom, it does not contain a beta hydrogen; and

c) a suitable carrier.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 20 OF 25 USPATFULL on STN

ACCESSION NUMBER: 1998:91590 USPATFULL

TITLE: Hydrating skin care and **sunscreen** composition containing dibenzoylmethane derivative, E.G., parsol 1789, and C12, C16, C18 branched chain hydroxybenzoate and/or C12, C16, branched chain benzoate stabilizers/solubilizers

INVENTOR(S): Bonda, Craig A., Wheaton, IL, United States

Hopper, Steven P., Glen Ellyn, IL, United States

PATENT ASSIGNEE(S): The C. P. Hall Company, Chicago, IL, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5788954		19980804
APPLICATION INFO.:	US 1997-967121		19971112 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-752585, filed on 21 Nov 1996		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Marshall, O'Toole, Gerstein, Murray & Borun		
NUMBER OF CLAIMS:	33		
EXEMPLARY CLAIM:	1		
LINE COUNT:	610		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A sunscreen composition containing a UV-A dibenzoylmethane derivative, such as 4-(1,1-dimethylethyl)-4'-methoxydibenzoylmethane (PARSOL.RTM. 1789), and a stabilizer/solubilizer for the dibenzoylmethane derivative having formula (I): ##STR1## wherein m=5, 7, 9 or mixtures and

n=4, 6, 8 or mixtures;

These long branched chain alkyl salicylates having a C.sub.4.sup.+ branch at the 2 position are quite effective in stabilizing the dibenzoylmethane derivative UV-B filter compounds making them more effective; effective for longer periods of time.

09/900,064

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 21 OF 25 USPATFULL on STN

ACCESSION NUMBER: 97:120272 USPATFULL
TITLE: **Sunscreen** composition
INVENTOR(S): Yue, Jiang, West Chester, OH, United States
Dew, Lisa Renee, West Chester, OH, United States
Bissett, Donald Lynn, Hamilton, OH, United States
PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5700451		19971223
APPLICATION INFO.:	US 1995-448942		19950524 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Henderson, Loretta J., Hake, Richard A., Howell, John M.		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
LINE COUNT:	888		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A TiO₂ hydrogel and method of preparation therefor is disclosed: TiO₂ particles ranging in size from at least about 50 nm to about 150 nm wherein the particle is about 20% to about 90% anatase are disclosed. Topical sunscreen compositions, which comprise 1% to about 15% anatase/amorphous TiO₂ are also disclosed. This composition provides UVA and UVB protection without concomitant dulling or discoloring the skin. The composition also has enhanced stability, is invisible, is easy to apply in an even manner and resists discoloration (or "color-changing") or decomposition on the shelf or on the skin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 22 OF 25 USPATFULL on STN

ACCESSION NUMBER: 96:29268 USPATFULL
TITLE: **Sunscreen** compositions
INVENTOR(S): Guerrero, Angel A., Huntington, CT, United States
Klepacky, Thomas C., Shelton, CT, United States
PATENT ASSIGNEE(S): Elizabeth Arden Company, Division of Conopco, Inc., New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5505935		19960409
APPLICATION INFO.:	US 1994-239660		19940509 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Honig, Milton L.		
NUMBER OF CLAIMS:	8		
EXEMPLARY CLAIM:	1		
LINE COUNT:	538		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cosmetic sunscreen composition is described that includes an ethylene/vinyl acetate copolymer, an acrylic polymer such as poly(methyl methacrylate) and a chromophoric organic sunscreen agent capable of absorbing ultraviolet radiation within the range 290 to 400 nm. The ethylene/vinyl acetate copolymer and acrylic polymer have been found to interactively boost the SPF value of the organic sunscreen.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 23 OF 25 USPATFULL on STN

ACCESSION NUMBER: 96:7542 USPATFULL

TITLE: **Sunscreen** compositions

INVENTOR(S): Guerrero, Angel A., Huntington, CT, United States

PATENT ASSIGNEE(S): Elizabeth Arden Company, New York, NY, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5486352		19960123
APPLICATION INFO.:	US 1995-367650		19950103 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Chang, Ceila		
ASSISTANT EXAMINER:	Huang, Evelyn		
LEGAL REPRESENTATIVE:	Honig, Milton L.		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
LINE COUNT:	597		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cosmetic sunscreen composition is described that includes an emulsion formed from water, an emollient oil and an organic sunscreen agent capable of absorbing ultraviolet radiation within the range of 290 to 400 nm. Further included in the sunscreen composition is a microfluidized medium formulated and microfluidized separately and prior to blending with the other aforementioned components. This medium includes water, a phospholipid, and an organic sunscreen agent identical to that in the emulsion. The combination of identical sunscreen agents in different environments provides an overall increase in SPF for the overall sunscreen composition.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L54 ANSWER 24 OF 25 USPATFULL on STN

ACCESSION NUMBER: 91:64673 USPATFULL

TITLE: **Sunscreen** preparation

INVENTOR(S): Goodman, Jack J., Morristown, NJ, United States

Tauman, Harvey S., Boca Raton, FL, United States

Fox, Charles, Fairlawn, NJ, United States

Hart, Thomas J., Dover, NJ, United States

PATENT ASSIGNEE(S): Dento-Med Industries, Inc., Boca Raton, FL, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5039516		19910813
APPLICATION INFO.:	US 1988-236053		19880824 (7)
DISCLAIMER DATE:	20061128		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Lovering, Richard D.		
LEGAL REPRESENTATIVE:	Skoler, George A.		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1,8		
LINE COUNT:	1171		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A water resistant, non-gummy, hygroscopic, flexible and pliable thin film containing a combination of a sunscreensing agent and a 2-hydroxyethyl methacrylate homopolymer deposited on an epidermal